

5 **What is claimed:**

1. A vacuum boring and mud recovery assembly, comprising a vacuum container mounted at a fixed slope and supported by a liquid water container, and a vacuum supply means, said fixed slope being of sufficient angle to allow debris to be emptied from the vacuum container by gravity when the access door is
10 opened.
2. The assembly of claim 1, wherein said fixed slope angle is in the range of $20 < \alpha < 85$, where α is said angle of said fixed slope.
3. The assembly of claim 1, wherein a filter housing is attached to and supported by said vacuum container.
- 15 4. The assembly of claim 3, wherein a single access clean out door provides access simultaneously to said vacuum container and said filter housing.
5. The assembly of claim 1, wherein a support is connected to the base of said liquid water container, said support comprising two parallel tubes extending beyond said water container and housing a support base for a power plant.
- 20 6. The assembly of claim 5, wherein said extended support comprises one or more of an engine, a vacuum producing means, a vacuum/blower, a water pump, a water jetter pump, a hydraulic pump and reservoir, an air compressor and air tank, an electric generator, a heater, controls, monitor, sensors, and a goose neck trailer coupler.
- 25 7. The assembly of claim 1, wherein said assembly can be mounted as a skid mount unit, a pick-up truck bed mounted unit secured by a goose neck ball, a forklift mounted unit, a skid steer mounted unit and a trailer mounted unit.

- 5 8. The assembly of claim 1, wherein a vibrating screen is mounted by a flexible connection on the inside of said vacuum container in order to separate liquids from solids.
9. The assembly of claim 8, wherein a liquid filtration system for cleaning, purification or sterilization, is mounted within said vacuum container.
- 10 10. The assembly of claim 9, wherein said vibrating screen is attached to a liquid dispensing means, said liquid dispensing means dispensing liquid from said vacuum container through said liquid filtration system and into said water container.
11. The assembly of claim 1, wherein a powered, rotating, telescoping, articulating boom is attached to said vacuum container, and a vacuum hose is mounted on said boom.
12. The assembly of claim 11, wherein said boom comprises multiple powered articulating arms, elbows and knuckles.
13. The assembly of claim 11, wherein a quick change end attachment is mounted on said boom, said attachment comprising a means for one or more of vacuuming, surface cleaning with water pressure, demolition, grinding, jettering, preparing surfaces, removing or replacing manhole covers, and monitor or control the operation of an attachment or a sensor to detect obstacles or located utilities.
- 20 14. The assembly of claim 11, wherein a hose reel is mounted on said vacuum container.
- 25 14. The assembly of claim 11, wherein a hose reel is mounted on said vacuum container.

- 5 15. The assembly of claim 1, wherein a screw conveyor is attached to said vacuum container, said conveyor comprising a discharge orifice having an air nozzle.